

FORTHCOMING PUBLICATIONS

Volume 82 (2008)

Diamond Jubilee celebration year of Gauhati University, 2008

Proceedings (Part I and Part II) of the 5th Biennial Conference of Physics Academy of the North East (PANE), held at Department of Physics, Gauhati University, Guwahati-781 014, Assam, India, during March 1-2, 2007

Foreword

DILIP KUMAR CHOUDHURY AND BUDDHADEV BHATTACHARJEE

Keynote Address

Use of low energy accelerator

AMIT ROY

Invited Talk

Fragility of Pb modified germanium chalcogenide glasses

A SRINIVASAN AND A K PATTANAIK

Contributed Papers

Direct derivation of Sagnac effect

K D KRORI, SABITA DUTTA AND KANIKA DAS

Bianchi type-1 string cosmology with a scalar field

K K BARUAH

The space distribution of QSOs

FROM ABLU MEITEI AND K YUGINDRO SINGH

The rapid neutron capture process in an explosive astrophysical environment

RULEE BARUAH, KALPANA DUORAH AND H L DUORAH

Raychaudhuri equation, big bang and accelerating universe

K D KRORI, SABITA DUTTA, KANIKA DAS AND CHANDRA REKHA MAHANTA

Nucleocosmochronology of Dergaon Meteorite

P DUTTA, K DUORAH AND H L DUORAH

Cavity modified laser induced fluorescence of a blended system of polymer film

R CHANGMAI AND G D BARUAH

Studies on water vapour droplets using a laser based air quality monitoring system

D DAS, G A AHMED AND A CHOUDHURY

Correlation distance of ionospheric total electron content in the Indian low latitude region

RASHMI REKHA BORAH, K BHUYAN AND P K BHUYAN

Dirac and Infeld-Hull ladder operator methods for a modified oscillator potential

O BABYNANDA DEVI AND C AMUBA SINGH

Algebraic approach to analyze the vibrational spectra of tetrahedral molecules

JOYDEEP CHOUDHURY, NIRMAL KUMAR SARKAR AND RAMENDU BHATTACHARJEE

A T-Matrix approach for morphological characterization of spherical nanoparticles using laser

ANKUR GOGOI AND GAZI AMEEN AHMED

Solvent dependent Raman anisotropic bandwidth study in carbonyl containing molecule : Role of van der waals' volume in intermolecular interactions

TH. GOMTI DEVI AND K KUMAR

Performance of thermally deposited polycrystalline Ge-thin film transistors TFTs with a copper interlayer fabricated on glass substrates

P GOGOI, K KONWAR AND B BAISHYA

Effect of wavelength and intensity of illumination on the photoelectronic properties of CdSe thin films

K SARMAH, R SARMA AND H L DAS

Microstructures, stress, strain and surface characterization in TD polycrystalline CdS thin films

K KUNJABALI SINGH AND H L DAS

A study of current- voltage characteristics of ITO/(p)Si heterojunctions

S CHALIHA, M N BORAH, P C SARMAH AND A RAHMAN

Study of critical current density from ac susceptibility measurements in $(\text{La}_{1-x}\text{Y}_x)_2\text{Ba}_2\text{CaCu}_5\text{O}_z$ superconductors

P K NAYAK AND S RAVI

Electrical transport and magnetic properties on $\text{La}_{0.85}\text{Ag}_{0.15}(\text{Mn}_{1-y}\text{Al}_y)\text{O}_3$ compound

S K SRIVASTAVA, MANORANJAN KAR AND S RAVI

Influence of cooling rate on the properties of ferromagnetic shape memory alloy

SIDANANDA SARMA AND A SRINIVASAN

Synthesis and optical characterization of CdS nanocomposites

R DEVI, P K KALITA, P PURKAYASTHA AND B K SARMA

Synthesis of lithium zinc ferrite powders by citrate precursor gel formation method

IBETOMBI SOIBAM, SUMITRA PHANJOURAM,
H BASANTKUMAR SHARMA AND H N K SARMA

Fabrication of silver/cross-linked polyvinyl alcohol nanoparticles by hydrothermal method

S DEB AND D SARKAR

Naphthalene and pentacene based organic thin film transistors with La_2O_3 as the gate insulator

K KONWAR, P GOGOI AND B BAISHYA

Comparative studies on optical parameters of CdTe and ZnO thin films

G WARY AND A RAHMAN

A numerical model for studying glass dissolution in water

S B SANTRA AND S RANJITA CHANU

An analysis of self-similarity in quark and gluon densities at small x

D K CHOUDHURY AND RUPJYOTI GOGOI

Programmable trigger circuit for UHE cosmic ray detection by mini-array method : simulation with VHDL

NAYANMONI SAIKIA, BANTY TIRU, DUDUMONI HANDIQUE,
P K BARUAH AND K BORUAH

Application of projection operator method to define basis functions for use in photoemission calculations

B ZOLIANA AND R K THAPA

Effect of collision geometry on the multiplicity of secondary charged particles emitted from $^{84}\text{Kr-AgBr}$ interactions at 950 MeV/A

B BHATTACHARJEE, B DEBNATH AND S SENGUPTA

Hardness study of titanium nitride thin films deposited on bell-metal by cylindrical magnetron sputtering

SANKAR MONI BORAH, ARUP RATAN PAL, HEREMBA BAILUNG AND
JOYANTI CHUTIA

Experimental investigation of sheath structure in dusty plasma

NIRAB CHANDRA ADHIKARY, HEREMBA BAILUNG, Y NAKAMURA,
ARUP RATAN PAL AND JOYANTI CHUTIA

Proton induced X-ray emission (PIXE) and proton induced γ -Ray emission (PIGE) studies of some medicinal plants of north east India

K NOMITA DEVI, H NANDAKUMAR SARMA AND SANJIV KUMAR

Type-II seesaw in $\text{SO}(10)$ theories with spontaneous CP violation

K BORA

Vector model of quantum interference laser

FARZANA B HAZARIKA, TULIKA TAMULY AND G D BARUAH

Algebraic approach : study of vibrational spectra of some linear triatomic molecules

NIRMAL KUMAR SARKAR, JOYDEEP CHOUDHURY AND RAMENDU BHATTACHARJEE

X-Ray and infrared spectroscopic studies of the molecular structure of 3-(2, 4-dichlorophenyl)-1-phenylprop-2-en-1-on

MANISHA PHUKAN AND BARINDRA KUMAR SARMA

Form factors and charge radii of light and heavy flavoured mesons with two loop potential

D K CHOUDHURY AND NAMITA SHARMA BORDOLOI

Quark contribution in the evolution equation of the scaling violation of F_2

ABHIJEET DAS AND A SAIKIA

Dispersion polymerized aniline : Field effect transistor behavior and characterization

J BHADRA AND D SARKAR

Elastic scattering AD fusion measurements induced by loosely bound system : an overview

K KALITA AND R SINGH

Emission characteristics of intermediate mass fragments on the residual part of the projectile nucleus

B DEBNATH, R TALUKDAR AND B BHATTACHARJEE